

Amendments to the Specification:

On page 1, please amend the first paragraph on lines 1-2 as follows:

~~The invention~~ This application relates to device and a method for the *in vivo* determination of the concentration of a PET tracer in blood.

On page 1, please amend the third paragraph spanning lines 17-19 as follows:

Against this background, it is an object of ~~the invention~~ to provide a means for determining the concentration of a PET tracer in the blood that is simple, less stressful for the patient, and at the same time precise.

On page 1, please delete the fourth paragraph spanning lines 20-22 in its entirety:

~~This object is achieved through a device with the features of claim 1, and well as through a method with the features of claim 9. Advantageous embodiments are contained in the dependent claims.~~

On page 1, please amend the fifth paragraph spanning lines 23-25 as follows:

~~The device according to the invention~~ One aspect resides in a device which serves for the *in vivo* determination of the concentration of a PET tracer in the blood of a (human or animal) subject. To this end, it includes the following components:

On page 4, please amend the third paragraph spanning lines 13-14 as follows:

The invention furthermore relates to a method for the *in vivo* determination of the concentration of a PET tracer in the blood, which comprises the following steps:

On page 4, please amend and divide the paragraph spanning lines 29-32 as follows:

~~In the following, the invention will be elucidated with the aid of the Figure, using examples. The invention may take form in various components and arrangements of components, and in various steps and arrangements of steps. The drawings are only for purposes of illustrating the preferred embodiments and are not to be construed as limiting the invention.~~

The single Figure shows schematically the components of the device in accordance with this invention, one embodiment of a device for determining the concentration of a tracer in the blood of a patient.

On page 6, after the last paragraph ending on line 25, please insert the following new paragraph:

The invention has been described with reference to the preferred embodiments. Modifications and alterations may occur to others upon reading and understanding the preceding detailed description. It is intended that the invention be construed as including all such modifications and alterations insofar as they come within the scope of the appended claims or the equivalents thereof.